

## Abstract

The present invention provides an uninterruptible switching power supply device and a  
5 method for uninterruptibly switching from AC input power to DC power, in which a high  
voltage circuit connected with the primary winding of the main transformer and a lower  
voltage circuit connected with a tap from the secondary are controlled by a PWM to operate  
synchronically. When the AC input is normal, the AC input power is transformed the main  
transformer to power a load. When the voltage of the AC input is lower than the  
10 predetermined value, the battery begins to discharge for compensating the power of the AC  
input. When the AC input is interrupted, the discharge of battery is transformed by the  
transformer in a self-coupling mode to power the load. The voltage transformation efficiency  
is improved with the device and method of the invention.